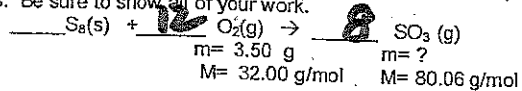


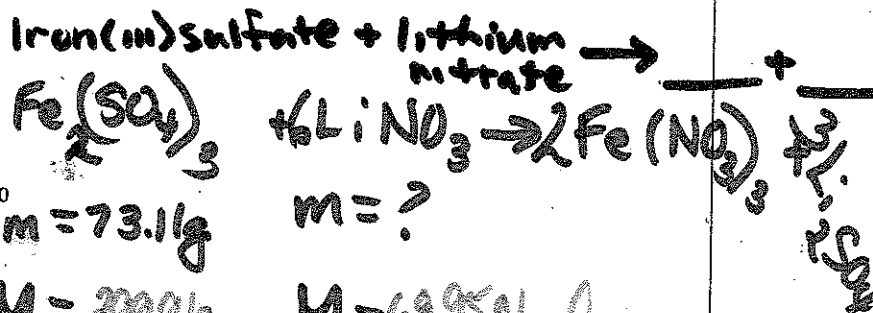
1. Using the following equation and the information below it, find the missing mass. Be sure to show all of your work.



15 $n = \frac{3.50 \text{ g}}{32.00 \text{ g/mol}} = 0.109 \text{ mol} \times \frac{8}{12} = 0.16$

$n = \frac{m}{M}$ $m = n \times M = 0.16 \text{ mol} \times 80.06 \text{ g/mol} = 5.8 \text{ g}$

2. How many grams of lithium nitrate will react with 73.11 g of iron(III)sulfate to form lithium sulfate. Be sure to include a balanced reaction equation. Show all of your work and units.



10 $m = 73.11 \text{ g}$ $m = ?$
 $M = 399.9 \text{ g/mol}$ $M = 68.95 \text{ g/mol}$

$n = \frac{73.11 \text{ g}}{399.9 \text{ g/mol}} = 0.18 \text{ mol} \times \frac{6}{2} = 1.09 \text{ mol}$

$n = \frac{m}{M}$

$1.09 \text{ mol} \times M$

$(\text{LiNO}_3) \text{ g/mol}$

$75.63 \text{ g} = m$